## 506600756 04/08/2021

# PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 EPAS ID: PAT6647561

Stylesheet Version v1.2

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
SANJAY HARWANI	04/08/2021
KARTIK RAVAL	03/11/2021
ANOOP GUPTA	04/06/2021

### **RECEIVING PARTY DATA**

Name:	PARALLEL WIRELESS, INC.	
Street Address:	100 INNOVATIVE WAY, SUITE 3410	
City:	NASHUA	
State/Country:	NEW HAMPSHIRE	
Postal Code:	03062	

### **PROPERTY NUMBERS Total: 1**

Property Type	Number
Application Number:	17152324

### **CORRESPONDENCE DATA**

Fax Number:

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

**Phone:** 603-367-3607

**Email:** ip.inbox@parallelwireless.com, kle@parallelwireless.com

Correspondent Name: PARALLEL WIRELESS, INC.

Address Line 1: 100 INNOVATIVE WAY, SUITE 3410
Address Line 4: NASHUA, NEW HAMPSHIRE 03062

ATTORNEY DOCKET NUMBER:	PWS-72662US01	
NAME OF SUBMITTER:	KRISTINE LE	
SIGNATURE:	/kristine le/	
DATE SIGNED:	04/08/2021	

## **Total Attachments: 7**

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#### ASSIGNMENT

(Patent Application)

We/I, the undersigned, have invented certain inventions and improvements disclosed in a PCT, utility (provisional or non-provisional) or design patent application entitled

## "Slow eNodeB/HNB Identification and Impact Mitigation,"

specified in the documents filed under U.S. Provisional App. No. 62/962,452 filed on January 17, 2020 and U.S. App. No. 17/152,324 filed on January 19, 2021.

For one dollar (\$1.00) and other good and valuable consideration, the receipt and sufficiency of which we/I acknowledge, we/I:

- 1. Hereby assign, transfer, convey, and sell and have assigned, transferred, conveyed, and sold to <u>Parallel Wireless, Inc.</u>, a corporation, having a principal place of business at <u>100 Innovative Way</u>, <u>Suite 3410</u>, <u>Nashua</u>, <u>NH</u>, <u>03062</u> ("Assignee"), the entire right, title, and interest in and to:
  - all intellectual property (including, without limitation, any innovation, information, invention, discovery, product, process, work or design) disclosed, embodied, shown, or claimed in the above-referenced patent application, implicitly or explicitly;
  - b. the above-referenced patent application, the right to claim priority to the above-referenced patent application, all applications based in whole or in part upon the above-referenced patent application, including, without limitation, all applications that are a provisional, non-provisional, design, divisional, continuation, continuation-in-part, registration, utility model, industrial design, national phase application in any country, reissue, renewal, substitute, extension, reexamination, post-grant review, inter partes review, supplemental examination or non-U.S. patent application or application for other rights based in whole or in part on the above-referenced patent application;
  - c. all patents (including, without limitation, all U.S. and non-U.S. patents, registrations, utility models, industrial designs, design patents, counterparts, continuations, continuations-in-part, divisionals, reissues, renewals, substitutes, extensions, national phase applications in any country, reexaminations, post-grant reviews, inter partes reviews, and supplemental examinations) that are granted or issued upon, or that claim priority to, any and all applications described in (b) of this paragraph or that disclose or claim intellectual property described in (a) of this paragraph, in whole or in part; and
  - d. all claims for damages by reason of past infringement of any rights under the applications or patents described in (a), (b) or (c) of this paragraph (including provisional rights to reasonable royalties pursuant to 35 U.S.C. § 154(d)) and the right to sue for and collect such damages and royalties for Assignee's own use.

 Additional commediate research process above the application number and finite and of the above described parent application when known.

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- 2. Authorize and request the U.S. Patent and Trademark Office or any other U.S. or non-U.S. agency to issue to the Assignee any and all patent(s), or other rights or documents, resulting from the intellectual property, patent application(s) and patents described in paragraph 1 of this Assignment.
- 3. Agree to sign all papers and documents, including without limitation, applications, declarations, oaths and petitions, and, at the Assignee's expense, perform any other acts that are necessary in connection with prosecution of patent application(s) or intellectual property described in paragraph 1 of this Assignment and the enforcement of patent(s) or other rights resulting from such patent application(s) or intellectual property.
- 4. Agree that the terms, covenants, and conditions of this Assignment shall inure to the benefit of the Assignee, its successors, assigns and other legal representative, and shall be binding upon us/me, as well as our/my heirs, legal representatives, and assigns.
- 5. Promise and affirm that we/I have not entered, and will not enter, into any assignment, contract, or understanding that conflicts with this Assignment.

Signed on the dates indicated beside our/my signature.

6. Authorize counsel of record to insert above the application number and filing date of the above-described patent application when known.

Signature:		Date:
Signature:	Sanjay Harwani	Date: <u>06-April-2021</u>
-	Anoop Gupta	
Assignee Represer	ntative:	
Signature:	Miller	Date: April 8, 2021

## ASSIGNMENT

(Patent Applications)

I, the undersigned, have invented or co-invented certain inventions and improvements disclosed in the PCT, utility (provisional or non-provisional) or design patent applications identified below, or identified in documents or oral disclosures provided to Parallel Wireless under the designated attorney docket number:

Attorney Docket Number	Application Number	Title	Date Filed
PWS-71894US00	62/454633	UE Mobility Across Super- Cells	February 3, 2017
PWS-72627US00	TO BE ADDED WHEN KNOWN	SCTP Load Balancer	TO BE ADDED WHEN KNOWN
PWS-71883US00	TO BE ADDED WHEN KNOWN	Multiple Virtual eNBs as HeNBGW	TO BE ADDED WHEN KNOWN
PWS-71885US00	TO BE ADDED WHEN KNOWN	Mobile eNB Deployment	TO BE ADDED WHEN KNOWN
PWS-71790US03	16/691599	SIM Whitelisting and Multi-Operator Core Networks	November 21, 2019
PWS-71850US04	15/889202	UE Mobility Across Super- Cells	February 5, 2018
PWS-72556US00	62/660642	Neighbor Relations for Moving Cells	April 20, 2018
PWS-72501US02	15/961719	X2 Brokering with Aggregation Optimization	April 24, 2018
PWS-72662US01	17/152324	Slow eNodeB/HNB Identification and Impact Mitigation	January 19, 2021
PWS-72662US00	62/962452	Slow eNodeB and HNB Identification and Impact Mitigation	January 17, 2020
PWS-72683US00	63/134329	Handling of SCTP packets with T-bit set at SCTP Load Balancer	January 6, 2021
PWS-72693US00	63/092535	Handover Forking Support for Improving Handover Success Rate in LTE	October 16, 2020
PWS-72684US00	TO BE ADDED WHEN KNOWN	Handling of the Inbound SCTP Packet at the SCTP Load Balancer and Tunneling Methodology	TO BE ADDED WHEN KNOWN

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PWS-72630US00	TO BE ADDED WHEN KNOWN	5G Redirection Layer	TO BE ADDED WHEN KNOWN
PWS-72629US00	62/876264	5G Mobile Network Solution with 5G Standalone (SA) Radio Access Network (RAN) with Evolved Packet Core (EPC) Solution	July 19, 2019
PWS-72629US01	16/933925	5G Stand Alone (SA) Radio Access Network (RAN) with Evolved Packet Core (EPC)	July 20, 2020
PWS-72612US00	62/855533	MME Load Balancer	May 31, 2019
PWS-72612US01	16/889796	MME Load Balancer	June 1, 2020
PWS-72632US00	62/873463	5G Mobile Network Solution With Intelligent 5G Non-Standalone (NSA) Radio Access Network (RAN) Solution	July 12, 2019
PWS-72632US01	16/927988	5G Mobile Network With Intelligent 5G Non- Standalone (NSA) Radio Access Network (RAN)	July 13, 2020
PWS-71756US02	15/721728	HANDOVERS WITH SIMPLIFIED NETWORK TOPOLOGY	August 29, 2017
PWS- 71777WO01	PCT/US15/58689	Improved Tracking Area Planning	November 2, 2015
PWS- 72501WO01	PCT/US18/12852	X2 Brokering with Aggregation Optimization	January 9, 2018
PWS- 72501WO02	PCT/US19/28875	Xx Brokering with Aggregation Optimization	April 24, 2019

For one dollar (\$1.00) and other good and valuable consideration, the receipt and sufficiency of which we/I acknowledge, we/I:

1. Hereby assign, transfer, convey, and sell and have assigned, transferred, conveyed, and sold to <u>Parallel Wireless Inc.</u>, a corporation, having a principal place of business at <u>100</u>

<u>Innovative Way, Suite 3410, Nashua, NH, 03062</u> ("Assignee"), the entire right, title, and interest in and to:

- a. all intellectual property (including, without limitation, any innovation, information, invention, discovery, product, process, work or design) disclosed, embodied, shown, or claimed in the above-referenced patent applications, implicitly or explicitly, or in any documents or oral disclosures provided to Parallel Wireless, Inc. prior to June 15, 2018 relating to the above-referenced inventions;
- b. the above-referenced patent applications, the right to claim priority to the above-referenced patent applications, all applications based in whole or in part upon the above-referenced patent applications, including, without limitation, all applications that are a provisional, non-provisional, design, divisional, continuation, continuation-in-part, registration, utility model, industrial design, national phase application in any country, reissue, renewal, substitute, extension, reexamination, post-grant review, inter partes review, supplemental examination or non-U.S. patent application or application for other rights based in whole or in part on the above-referenced patent applications;
- c. all patents (including, without limitation, all U.S. and non-U.S. patents, registrations, utility models, industrial designs, design patents, counterparts, continuations, continuations-in-part, divisionals, reissues, renewals, substitutes, extensions, national phase applications in any country, reexaminations, postgrant reviews, inter partes reviews, and supplemental examinations) that are granted or issued upon, or that claim priority to, any and all applications described in (b) of this paragraph or that disclose or claim intellectual property described in (a) of this paragraph, in whole or in part; and
- d. all claims for damages by reason of past infringement of any rights under the applications or patents described in (a), (b) or (c) of this paragraph (including provisional rights to reasonable royalties pursuant to 35 U.S.C. § 154(d)) and the right to sue for and collect such damages and royalties for Assignee's own use.
- 2. Authorize and request the U.S. Patent and Trademark Office or any other U.S. or non-U.S. agency to issue to the Assignee any and all patent(s), or other rights or documents, resulting from the intellectual property, patent application(s) and patents described in paragraph 1 of this Assignment.
- 3. Agree to sign all papers and documents, including without limitation, applications, declarations, oaths and petitions, and, at the Assignee's expense, perform any other acts that are necessary in connection with prosecution of patent application(s) or intellectual property described in paragraph 1 of this Assignment and the enforcement of patent(s) or other rights resulting from such patent application(s) or intellectual property.
- 4. Agree that the terms, covenants, and conditions of this Assignment shall inure to the benefit of the Assignee, its successors, assigns and other legal representative, and shall be binding upon us/me, as well as our/my heirs, legal representatives, and assigns.
- 5. Promise and affirm that we/I have not entered, and will not enter, into any assignment, contract, or understanding that conflicts with this Assignment.
- 6. Authorize counsel of record to insert above the application number(s) and filing date(s) of the above-described patent applications when known.

Signed on the date indicated beside my signature.

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(K) ON O	_ 3/11/2021
Signature:	Date. Or 172021
5151161611 . \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	Bate:

Kartik Shashikant Raval

Parallel Wireless, Inc.

Signature: \_ Name: \_\_

Title: Director, IP and Corporate Counsel

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